

AD-A181 188

DESIGN AND SYNTHESIS OF OXYGEN-BINDING HEME PEPTIDES  
(U) BAYLOR COLL OF MEDICINE HOUSTON TX H Z ATASSI  
30 OCT 86 N00014-85-K-0585

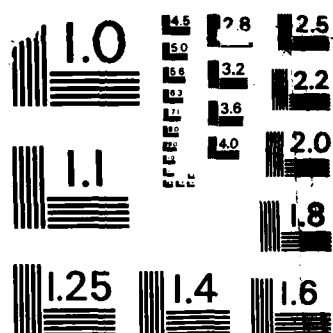
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Heme peptides, synthetic peptides, oxygen-binding,  
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19. ABSTRACT (Continue on reverse if necessary and identify by block number)

→ In the first 3 months of the first budget year, we recruited and obtained the reagents and supplies for the performance of the research. The following peptides have now been synthesized and are being purified. These peptides represent alternative designs mimicking the heme cavity of myoglobin and the  $\alpha$  and  $\beta$  chains of human hemoglobin. ←

- 61 65 71 86 93 99  
1. (C).L.K.K.H.G.V.T.V.L.T.A.(G).L.K.P.L.A.Q.S.H-I 22 residues
- 61 65 70 75 86 99  
2. (C).L.K.K.H.G.V.T.V.L.T.A.L.G.A.I.(G).L.K.P.L.A.Q.S.H.A.T.K.H.K.I. 31 residues

(continued on reverse)

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Dr. J.A. Maide

22b. TELEPHONE (Include Area Code)

(202) 696-4055

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3.      61      65      71      86      90      95      99  
(C).L.K.K.H.G.W.T.V.L.T.A.(G).L.K.P.L.A.Q.S.H.A.T.K.H.K.I      27 residue
4.      55      60      65      80      87 93  
(C).V.K.G.H.G.K.K.V.A.D.A.(G).L.S.A.L.S.D.L.H-V      22 residue
5.      55      60      65      69      80      85      90      93  
(C).V.K.G.H.G.K.K.V.A.D.A.L.T.N.A.(G).L.S.A.L.S.D.L.H.A.H.K.L.R.V.      31 residue
6.      65      85      85      90      93  
(C).V.K.G.H.G.K.K.V.A.D.A.(G).L.S.A.L.S.D.L.H.A.H.K.L.R.V.      27 residue
7.      60      65      70      85      92 98  
(C).V.K.A.H.G.K.K.V.L.G.A.(G).F.A.T.L.S.E.L.H-V      22 residue
8.      60      65      70      74      85      90      95      98  
V.K.A.H.G.K.K.V.L.G.A.F.S.D.G.(G).F.A.T.L.S.E.L.H.C.D.K.L.H.V      30 residue
9.      60      98  
(C).V-----A-----V      31 residues
10.      60      65      70      85      90      95      98  
V.K.A.H.G.K.K.V.L.G.A.(G).F.A.T.L.S.E.L.H.C.D.K.L.H.V.      26 residues
11.      60      98  
(C).V-----A-----V      27 residues

During the second budget year, additional peptides outlined in the proposal will be synthesized. All three peptides will be purified and their binding properties studied.

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